

We claim:

1. A process for the partial or complete separation of a mixture comprising hydrogen chloride and phosgene, possibly solvents and possibly low boilers and inerts as are typically obtained in the preparation of isocyanates by reaction of amines with phosgene, which comprises firstly carrying out a partial or complete condensation of phosgene, then a distillation or stripping step in a column to remove the hydrogen chloride from the bottom product phosgene and subsequently a scrub of the top product hydrogen chloride by means of the process solvent to absorb the phosgene in the process solvent.
2. A process as claimed in claim 1, wherein the partial or complete condensation of phosgene is carried out at from  $-40^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  and pressures of from 1 to 35 bar, preferably from 3 to 16 bar.
3. A process as claimed in claim 1 or 2, wherein the distillation to remove hydrogen chloride from phosgene is carried out at a temperature of the bottom of from 5 to  $150^{\circ}\text{C}$ , preferably from 5 to  $50^{\circ}\text{C}$ , a pressure at the top of from 1 to 35 bar, preferably from 1.5 to 4.0 bar, and a temperature at the top of from  $-20^{\circ}\text{C}$  to  $30^{\circ}\text{C}$ , preferably from  $-10^{\circ}\text{C}$  to  $0^{\circ}\text{C}$ .
4. A process as claimed in any of claims 1 to 3, wherein the hydrogen chloride is removed from the phosgene by stripping with an inert gas such as nitrogen, process solvent vapor, phosgene or another gaseous or vaporizable substance.
5. A process as claimed in any of claims 1 to 4, wherein the absorption or scrub is carried out using the process solvent.
6. A process as claimed in any of claims 1 to 5, wherein the temperature at the top of the absorber is from  $-40^{\circ}\text{C}$  to  $10^{\circ}\text{C}$ , preferably from  $-15^{\circ}\text{C}$  to  $0^{\circ}\text{C}$ , the temperature at the bottom is from  $-10^{\circ}\text{C}$  to  $30^{\circ}\text{C}$ , preferably from 0 to  $10^{\circ}\text{C}$ , and the pressure at the top is 1-35 bar, preferably 1.5-4.0 bar.
7. A process as claimed in any of claims 1 to 6, wherein the absorption medium stream for the absorption has been saturated beforehand with hydrogen chloride and, if desired, the heat of condensation has been removed.

8. A process as claimed in any of claims 1 to 7, wherein the heat of condensation of hydrogen chloride and phosgene in the absorption medium is removed by intermediate cooling in the absorber.
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9. A process as claimed in any of claims 1 to 8, wherein an after-purification by means of adsorption, preferably on activated carbon, is carried out.
- 10 10. A process as claimed in any of claims 1 to 9, wherein the scrub is carried out using chlorobenzene.
11. A process as claimed in any of claims 1 to 10, wherein the phosgene obtained at the bottom of the distillation column or the phosgene solution is recirculated to the reaction section of an isocyanate synthesis.
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12. A process as claimed in any of claims 1 to 11, wherein the phosgene obtained at the bottom of the distillation column or the phosgene solution is used as runback in distillation or reaction columns or as scrubbing solution for absorbers or scrubbers.
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13. A process as claimed in any of claims 1 to 12, wherein the phosgene solution obtained at the bottom of the absorber is recirculated to the reaction section of an isocyanate synthesis.
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14. A process as claimed in any of claims 1 to 13, wherein the phosgene solution obtained at the bottom of the absorber or the scrubbing column is used as runback for distillation or reaction columns or as scrubbing solution for the absorber or scrubber.
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15. A process as claimed in any of claims 1 to 14, wherein the hydrogen chloride obtained is subsequently compressed.
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16. A process as claimed in any of claims 1 to 15, wherein the hydrogen chloride obtained is subsequently used for a preparation of ethylene dichloride (or vinyl chloride) or for a Deacon process.
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